



LANDAU
ASSOCIATES,
INC.

Environmental and Geotechnical Services

COLSF 8.4 V1

April 19, 1994

Mr. Mike Kuntz
Washington State Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

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SUPERFUND REMEDIAL BRANCH

**RE: COLBERT LANDFILL RD/RA
MONTHLY PROGRESS REPORT
MARCH 1994**

Dear Mr. Kuntz:

Presented herein is the progress report for the Colbert Landfill Remedial Design/Remedial Action Superfund project for the month of March 1994, which was prepared by Landau Associates, Inc., Spokane County's engineering consultant. This progress report addresses the reporting requirements specified in Section XI of the project Consent Decree, including:

- Remedial action activities commenced or completed during the reporting period
- Remedial action activities projected to be commenced or completed through April 30, 1994
- Any problems that were encountered or are anticipated.

1.0 ACTIVITIES COMMENCED/COMPLETED DURING REPORTING PERIOD

- The remedial action (RA) facilities construction contractor, Humphrey Construction, Inc. (Humphrey), continued to complete the work with only minor deviation from schedule. Landau Associates was onsite continuously to observe construction of RA facilities. Installation continued on electrical transformers, services, metering facilities, switch gear, and motor control centers. Chemical resistant coating was installed in process area of the treatment facility. Software programming for the instrumentation, control, and monitoring systems was completed. Radio telemetry antenna and cabling installation were completed. Ancillary building components, including nonstructural walls, doors, door frames, window frames, dry wall, plumbing, electrical, and miscellaneous finish work was completed. Installation of the treatment facility process piping and equipment was completed. Installation and calibration of instrumentation and electrical control systems were 90 percent completed. Operational demonstrations and system validation testing plans were approved for implementation. Pressure testing of all process piping systems at the treatment facility was completed. Groundwater extraction well CP E-1 was commissioned for manual operation and groundwater was successfully conveyed from the well to the air stripper through the permanent underground conveyance

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piping so the closed loop system validation performance testing of the air stripping equipment could be conducted with water of an appropriate ionic matrix.

- Ershigs (the air stripping system supplier) commenced operational demonstration and system validation closed loop performance testing of the air stripping equipment. Operational demonstration tests were successfully completed. Temporary piping installed at the treatment facility for the conduct of the system validation performance test failed; the contaminated water was retained in the secondary containment structure. Secondary contamination of the groundwater released into the secondary containment structure precluded reintroduction into the air stripper, so arrangements were made for disposal of the affected groundwater at the City of Spokane Wastewater Treatment facility. Approximately 2500 gallons of affected groundwater was transported and discharged to the City's wastewater treatment facility. Temporary piping for the closed loop system validation performance testing was reconstructed to prevent future failure and testing was recommenced. Validation testing for the 1600 gallon per minute flow condition was completed. Preliminary test results indicate that the air stripping equipment will reliably reduce the concentrations of the six volatile organic compounds affecting the groundwater in the project area, known as the Constituents of Concern, to below the Evaluation Criteria set forth in Consent Decree.
- Representatives from Ecology and Landau Associates met in late March 1994 to discuss the draft substantive NPDES requirements. Ecology submitted a draft of the substantive NPDES requirements to Spokane County on April 3, 1994. Ecology published and distributed the draft substantive NPDES requirements to the public for comment.
- Landau Associates continued preparation of the facility operation and maintenance plan. The draft plan is 80 percent complete. Humphrey Construction and Ershigs submitted draft operation and maintenance manuals for the equipment and facilities furnished and installed by each contractor respectively. The manuals were reviewed, evaluated and returned to the respective contractor's for revision.
- Landau Associates field verified groundwater levels at groundwater extraction and monitoring wells to provide accurate baseline data to assist in system start-up.
- Landau Associates commenced preparation of the training materials for the groundwater extraction and treatment facility operation and maintenance staff.

2.0 ACTIVITIES/PROJECTS TO BE COMMENCED/COMPLETED DURING THE NEXT REPORTING PERIOD

Progress reports will be submitted monthly until construction is complete, as prescribed in the project Consent Decree; consequently, the next reporting period will extend through April 30, 1994. Anticipated activities for April include:

- Continuing remedial action construction. Anticipated construction activities include:
 - Complete closed-loop operational testing and system validation testing of the Air Stripping Equipment by Ershigs. Prepare certified performance test report documenting air stripping treatment system performance.
 - Complete construction of remaining treatment facility process, electrical, instrumentation, fire alarm, and security alarm systems.
 - Complete start-up system check out of installed electrical services at the extraction wells, and telephone service at the treatment facility.
 - Complete start-up system check out of installed instrumentation systems at the treatment facility and at the extraction wells.
- Implement Operational Demonstration and System Validation Testing Plan for all groundwater extraction wells and the treatment facility, including ancillary systems.
- Initiate additional sampling and monitoring requirements in accordance with the approved Quality Assurance Project Plan and the Consent Decree concurrent with facility start-up, testing and commissioning.
- Initiate NPDES discharge monitoring requirements in accordance with the approved 90 day discharge permit.
- Submit the Operations and Maintenance Plan to EPA and Ecology for review.

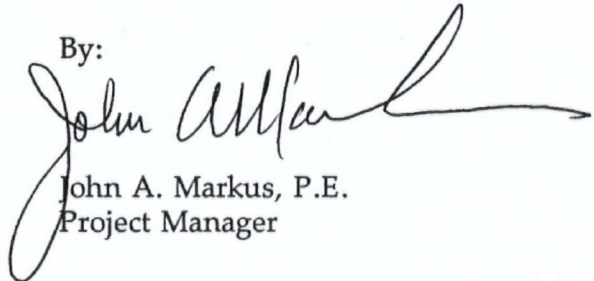
3.0 ENCOUNTERED/ANTICIPATED PROBLEMS

Construction was delayed approximately two weeks due to temporary piping and equipment failures associated with the validation performance testing of the air stripping equipment. The air stripping equipment system validation performance testing was completed on April 11, 1994. All chemical analytical results from the test are pending release from the independent state certified laboratory, Columbia Analytical Services. Construction and preliminary start-up activities associated with the treatment facility and groundwater extraction systems are anticipated to be substantially complete by April 27, 1994 and discharge of treated groundwater to the Little Spokane River will be initiated. Start-up, operational and system validation testing by Humphrey Construction is scheduled to be complete on May 14. Additional intensive operational adjustments and activities including groundwater interception system and treatment system optimization will continue for approximately one month following completion of construction, and it is anticipated that the remedial action will be fully operational in June 1994.

This report describes progress on only the primary project remedial action activities. There are peripheral activities associated with the primary activities which are not described herein. If clarification is required for any of the activities presented in this progress report, or if additional information is desired for peripheral activities, please contact Landau Associates or Dean Fowler (Spokane County).

LANDAU ASSOCIATES, INC.

By:

A handwritten signature in black ink, appearing to read "John A. Markus", with a long horizontal flourish extending to the right.

John A. Markus, P.E.
Project Manager

JAM/jam
No. 124002.120

cc: Neil Thompson, U.S. Environmental Protection Agency
Dean Fowler, Spokane County
Lyle Diedieker, Ecology & Environment, Inc.